



SEQUENCE LISTING

<110> WEI, Ming-Hui et al.

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ACID MOLECULES ENCODING HUMAN ENZYME PROTEINS, AND USES  
THEREOF

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<141> 08-20-2003

<150> 09/820,004

<151> 03-29-2001

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<210> 4  
 <211> 417  
 <212> PRT  
 <213> Homo sapiens

<400> 4

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			20					25					30		
Gln	Asp	Ser	Leu	Ser	Ser	Ser	Leu	Lys	Thr	Cys	Tyr	Lys	Tyr	Leu	Asn
		35					40					45			
Gln	Thr	Ser	Arg	Ser	Phe	Ala	Ala	Val	Ile	Gln	Ala	Leu	Asp	Gly	Glu
	50					55					60				
Met	Arg	Asn	Ala	Val	Cys	Ile	Phe	Tyr	Leu	Val	Leu	Arg	Ala	Leu	Asp
65					70					75					80
Thr	Leu	Glu	Asp	Asp	Met	Thr	Ile	Ser	Val	Glu	Lys	Lys	Val	Pro	Leu
				85					90					95	
Leu	His	Asn	Phe	His	Ser	Phe	Leu	Tyr	Gln	Pro	Asp	Trp	Arg	Phe	Met
			100					105					110		
Glu	Ser	Lys	Glu	Lys	Asp	Arg	Gln	Val	Leu	Glu	Asp	Phe	Pro	Thr	Ile
		115					120					125			
Ser	Leu	Glu	Phe	Arg	Asn	Leu	Ala	Glu	Lys	Tyr	Gln	Thr	Val	Ile	Ala
	130					135					140				
Asp	Ile	Cys	Arg	Arg	Met	Gly	Ile	Gly	Met	Ala	Glu	Phe	Leu	Asp	Lys
145					150					155					160
His	Val	Thr	Ser	Glu	Gln	Glu	Trp	Asp	Lys	Tyr	Cys	His	Tyr	Val	Ala
				165					170					175	
Gly	Leu	Val	Gly	Ile	Gly	Leu	Ser	Arg	Leu	Phe	Ser	Ala	Ser	Glu	Phe
			180					185					190		
Glu	Asp	Pro	Leu	Val	Gly	Glu	Asp	Thr	Glu	Arg	Ala	Asn	Ser	Met	Gly
		195					200					205			
Leu	Phe	Leu	Gln	Lys	Thr	Asn	Ile	Ile	Arg	Asp	Tyr	Leu	Glu	Asp	Gln
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Gln	Gly	Gly	Arg	Glu	Phe	Trp	Pro	Gln	Glu	Val	Trp	Ser	Arg	Tyr	Val
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Lys	Lys	Leu	Gly	Asp	Phe	Ala	Lys	Pro	Glu	Asn	Ile	Asp	Leu	Ala	Val
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Gln	Cys	Leu	Asn	Glu	Leu	Ile	Thr	Asn	Ala	Leu	His	His	Ile	Pro	Asp
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Val	Ile	Thr	Tyr	Leu	Ser	Arg	Leu	Arg	Asn	Gln	Ser	Val	Phe	Asn	Phe
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Cys	Ala	Ile	Pro	Gln	Val	Met	Ala	Ile	Ala	Thr	Leu	Ala	Ala	Cys	Tyr
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Asn	Asn	Gln	Gln	Val	Phe	Lys	Gly	Ala	Val	Lys	Ile	Arg	Lys	Gly	Gln
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Ala	Val	Thr	Leu	Met	Met	Asp	Ala	Thr	Asn	Met	Pro	Ala	Val	Lys	Ala
				325					330					335	
Ile	Ile	Tyr	Gln	Tyr	Met	Glu	Glu	Ile	Tyr	His	Arg	Ile	Pro	Asp	Ser
			340					345					350		
Asp	Pro	Ser	Ser	Ser	Lys	Thr	Arg	Gln	Ile	Ile	Ser	Thr	Ile	Arg	Thr
		355					360					365			
Gln	Asn	Leu	Pro	Asn	Cys	Gln	Leu	Ile	Ser	Arg	Ser	His	Tyr	Ser	Pro
	370					375					380				
Ile	Tyr	Leu	Ser	Phe	Val	Met	Leu	Leu	Ala	Ala	Leu	Ser	Trp	Gln	Tyr
385					390					395					400
Leu	Thr	Thr	Leu	Ser	Gln	Val	Thr	Glu	Asp	Tyr	Val	Gln	Thr	Gly	Glu
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His

<210> 5  
 <211> 417  
 <212> PRT  
 <213> Homo sapiens

<400> 5

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			20					25					30		
Gln	Asp	Ser	Leu	Ser	Ser	Ser	Leu	Lys	Thr	Cys	Tyr	Lys	Tyr	Leu	Asn
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Gln	Thr	Ser	Arg	Ser	Phe	Ala	Ala	Val	Ile	Gln	Ala	Leu	Asp	Gly	Glu
	50					55					60				
Met	Arg	Asn	Ala	Val	Cys	Ile	Phe	Tyr	Leu	Val	Leu	Arg	Ala	Leu	Asp
65					70					75					80
Thr	Leu	Glu	Asp	Asp	Met	Thr	Ile	Ser	Val	Glu	Lys	Lys	Val	Pro	Leu
				85					90					95	
Leu	His	Asn	Phe	His	Ser	Phe	Leu	Tyr	Gln	Pro	Asp	Trp	Arg	Phe	Met
			100					105					110		
Glu	Ser	Lys	Glu	Lys	Asp	Arg	Gln	Val	Leu	Glu	Asp	Phe	Pro	Thr	Ile
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Ser	Leu	Glu	Phe	Arg	Asn	Leu	Ala	Glu	Lys	Tyr	Gln	Thr	Val	Ile	Ala
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Asp	Ile	Cys	Arg	Arg	Met	Gly	Ile	Gly	Met	Ala	Glu	Phe	Leu	Asp	Lys
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His	Val	Thr	Ser	Glu	Gln	Glu	Trp	Asp	Lys	Tyr	Cys	His	Tyr	Val	Ala
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Gly	Leu	Val	Gly	Ile	Gly	Leu	Ser	Arg	Leu	Phe	Ser	Ala	Ser	Glu	Phe
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Glu	Asp	Pro	Leu	Val	Gly	Glu	Asp	Thr	Glu	Arg	Ala	Asn	Ser	Met	Gly
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Leu	Phe	Leu	Gln	Lys	Thr	Asn	Ile	Ile	Arg	Asp	Tyr	Leu	Glu	Asp	Gln
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Lys	Lys	Leu	Gly	Asp	Phe	Ala	Lys	Pro	Glu	Asn	Ile	Asp	Leu	Ala	Val
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Gln	Cys	Leu	Asn	Glu	Leu	Ile	Thr	Asn	Ala	Leu	His	His	Ile	Pro	Asp
			260					265					270		
Val	Ile	Thr	Tyr	Leu	Ser	Arg	Leu	Arg	Asn	Gln	Ser	Val	Phe	Asn	Phe
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Cys	Ala	Ile	Pro	Gln	Val	Met	Ala	Ile	Ala	Thr	Leu	Ala	Ala	Cys	Tyr
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Ala	Val	Thr	Leu	Met	Met	Asp	Ala	Thr	Asn	Met	Pro	Ala	Val	Lys	Ala
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Ile	Ile	Tyr	Gln	Tyr	Met	Glu	Glu	Ile	Tyr	His	Arg	Ile	Pro	Asp	Ser
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Leu Thr Thr Leu Ser Gln Val Thr Glu Asp Tyr Val Gln Thr Gly Glu  
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 His

<210> 6  
 <211> 417  
 <212> PRT  
 <213> Homo sapiens

<400> 6  
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 35 40 45  
 Gln Thr Ser Arg Ser Phe Ala Ala Val Ile Gln Ala Leu Asp Gly Glu  
 50 55 60  
 Met Arg Asn Ala Val Cys Ile Phe Tyr Leu Val Leu Arg Ala Leu Asp  
 65 70 75 80  
 Thr Leu Glu Asp Asp Met Thr Ile Ser Val Glu Lys Lys Val Pro Leu  
 85 90 95  
 Leu His Asn Phe His Ser Phe Leu Tyr Gln Pro Asp Trp Arg Phe Met  
 100 105 110  
 Glu Ser Lys Glu Lys Asp Arg Gln Val Leu Glu Asp Phe Pro Thr Ile  
 115 120 125  
 Ser Leu Glu Phe Arg Asn Leu Ala Glu Lys Tyr Gln Thr Val Ile Ala  
 130 135 140  
 Asp Ile Cys Arg Arg Met Gly Ile Gly Met Ala Glu Phe Leu Asp Lys  
 145 150 155 160  
 His Val Thr Ser Glu Gln Glu Trp Asp Lys Tyr Cys His Tyr Val Ala  
 165 170 175  
 Gly Leu Val Gly Ile Gly Leu Ser Arg Leu Phe Ser Ala Ser Glu Phe  
 180 185 190  
 Glu Asp Pro Leu Val Gly Glu Asp Thr Glu Arg Ala Asn Ser Met Gly  
 195 200 205  
 Leu Phe Leu Gln Lys Thr Asn Ile Ile Arg Asp Tyr Leu Glu Asp Gln  
 210 215 220  
 Gln Gly Gly Arg Glu Phe Trp Pro Gln Glu Val Trp Ser Arg Tyr Val  
 225 230 235 240  
 Lys Lys Leu Gly Asp Phe Ala Lys Pro Glu Asn Ile Asp Leu Ala Val  
 245 250 255  
 Gln Cys Leu Asn Glu Leu Ile Thr Asn Ala Leu His His Ile Pro Asp  
 260 265 270  
 Val Ile Thr Tyr Leu Ser Arg Leu Arg Asn Gln Ser Val Phe Asn Phe  
 275 280 285  
 Cys Ala Ile Pro Gln Val Met Ala Ile Ala Thr Leu Ala Ala Cys Tyr  
 290 295 300  
 Asn Asn Gln Gln Val Phe Lys Gly Ala Val Lys Ile Arg Lys Gly Gln  
 305 310 315 320  
 Ala Val Thr Leu Met Met Asp Ala Thr Asn Met Pro Ala Val Lys Ala  
 325 330 335  
 Ile Ile Tyr Gln Tyr Met Glu Glu Ile Tyr His Arg Ile Pro Asp Ser  
 340 345 350  
 Asp Pro Ser Ser Ser Lys Thr Arg Gln Ile Ile Ser Thr Ile Arg Thr

355					360					365					
Gln	Asn	Leu	Pro	Asn	Cys	Gln	Leu	Ile	Ser	Arg	Ser	His	Tyr	Ser	Pro
370					375					380					
Ile	Tyr	Leu	Ser	Phe	Val	Met	Leu	Leu	Ala	Ala	Leu	Ser	Trp	Gln	Tyr
385					390					395					400
Leu	Ala	Thr	Leu	Ser	Gln	Val	Thr	Glu	Asp	Tyr	Val	Gln	Thr	Gly	Glu
405					410					415					
His															